C3 Fluorometer report and observations R/V Brooks McCall, 19 May 2010 Michael C. Murrell, Ph.D.

On leg 1, the computer used to run the C3 was rained on. After a few days drying out, it is now functional again. One thing I noticed was that the computer clock was about 20 minutes slow and was reading sometime in Dec 2006 (if memory serves). I adjusted it to match the GPS clock feed on the NAV computer. I mention this only as a potential QA concern for prior deployments, which should be checked to confirm an accurate time stamp.

I conducted one successful 15 min deployment today, between stations B31 and B32. It took a couple of tries to get the configuration sequence correctly done. Plotting the data shows relatively little interesting structure. A few spikes in the CDOM channel were evident, but this seemed poorly related to TSS channel, in contrast to prior C3 data report. During the deployment we were moving through patches of brown flocs of oil at the surface. However, the subsurface (~1.5 m down) where the C3 was sampling, the water looked very clear and free of oil flocs. Hence, the spikes in CDOM may have been occasional patches of oil that mixed down. I should also mention that the seas are glassy calm, so very little mixing energy today. Another noteworthy pattern were the temperature excursions during the deployment. While quite small in magnitude (~0.2 C), they had a remarkably regular periodicity (~ 5 min).

